

WHAT IS CLAIMED IS:

1. A water supply system with pressure-stabilized water storage and quality-distinguished supply of service and potable water, including pipe valves, instruments and water supply piping network, wherein it also includes

5 a multifunctional water supply tank with pressure-stabilized water storage and quality-distinguished supply of service and potable water;

at least a set of filtering cylinder assembly and a water supply piping network for purified water filter assembly, where a filtering cylinder assembly communicated with the potable water outlet through pipes is provided outside the water supply tank, and the  
10 pipe valves and instruments matched with the filtering cylinder assembly form the purified potable water supply piping network mountable in households.

2. The water supply system with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claim 1, wherein the system is provided with a purified water filtering assembly, a water supply piping  
15 network and instruments for the use of high-standard industrial pure water processing and seawater desalination, the sewage drained from the system being purified into neutral water.

3. The water supply system with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claim 1, wherein  
20 the multifunctional water supply tank with pressure-stabilized water storage and quality-distinguished of service and potable water and the purifying device and solar water heater can be located separately on building's roof or ground floor in accordance

with the building's height matched with the reachable height of the water supply pressure in the piping network, the system being able to be mounted in a way of either single function or multifunction, and a central water sales station using the system of the invention being able to be established for the buildings that are difficult to be  
5 reconstructed into the buildings with independent household water supply services to sporadically provide pure water and electrically-heated water.

4. The water supply system with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claim 3, wherein a household water storage pot with a volume of 20-30 liter connected with unit water  
10 supply branch pipe is provided in front of the household potable water inlet pipe and behind the water meter for collecting water amount during the fastigium of city water consumption, the system can be provided complementarily with water by additional electric water heater and frequency-converting water pump.

5. A multifunctional water supply tank with pressure-stabilized water storage  
15 and quality-distinguished supply of service and potable water, wherein it includes a service water storage room containing a water inlet and a water outlet, a potable water storage room communicating with the service water storage room and containing purifying agents, a potable water outlet and a water outlet communicating with a solar water heater.

20 6. A multifunctional water supply tank with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claim 5, wherein a through hole is provided in the separating wall between the service water

storage room and the potable water storage room, the potable water outlet being located in the upper part of the potable water storage room.

7. A multifunctional water supply tank with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claim 5,  
5 wherein the purifying agents are plastic-net filtering bags containing quartz grits, an ozone inflating tube with one end extending outside the tank and connected with an ozone generator, and the plastic-net filtering bags are disposed in a movable plastic tube supporting frame.

8. A multifunctional water supply tank with pressure-stabilized water storage  
10 and quality-distinguished supply of service and potable water according to claims 5 or 7, wherein it has an ozone branch inflating tube, whose one end is communicated with the ozone inflating tube and the other end extends into the bottom of the filtering bags in the service water storage room.

9. A multifunctional water supply tank with pressure-stabilized water storage  
15 and quality-distinguished supply of service and potable water according to claim 5, wherein the service water storage room has a float-type automatic switch valve at its inlet, a glass-visualized water level gage and an overflow pipe located outside the water supply tank, and a sewage draining valve being individually disposed at the bottom of service water storage room and that of the potable water storage room.

20 10. A multifunctional water supply tank with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claims 5 or 9, characterized in that at the bottom of the service water storage room and the potable

water storage room, two inclined foam concrete-filled temperature-preserving layers are disposed at either side of a sewage draining valve and a stainless steel plate is covered on the foam concrete-filled temperature-preserving layer.

11. A multifunctional water supply tank with pressure-stabilized water storage  
5 and quality-distinguished supply of service and potable water according to claim 5,  
wherein the water tank wall, the tank cover and the outlet pipes connected with the water outlet are individually made of a light steel plate-wire-net-concrete layer or a stainless steel inner wall, a micro electrically-heated layer, a temperature-preserved foam concrete layer, a polymer temperature-preserving heat-isolating layer, and a  
10 temperature-preserving light-reflecting surface film, the micro electrically-heated layer being composed of a heat-conductive isolating film, a 36V micro electrically-heating film or plate, and an isolating film, which are connected in succession.

12. A multifunctional water supply tank with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to claim 5,  
15 wherein a purified water-circulating return pipe is connected with the upper part of the potable water storage room.

13. The water supply system with pressure-stabilized water storage and quality-distinguished supply of service and potable water according to Claims 1 or 3, characterized in that for the neutral water recycling two-storey structure is disposed under  
20 the parking lot or lawn in the area of residential quarters for a separate processing of collected life sewage, roof rainwater and ground surface rainwater, which is provided with a sewage fence and is constructed by casting with anti-infiltration reinforced

concrete, having a biochemical processing pool with a through hole, a depositing pool, a buffer pool, a rebounded filtering pool, a neutral water-classifying storage pool, a sewage-draining water-collecting well, a quality-distinguished super filtering machine and neutral water recycling pipes as well as a frequency-converting pump house

5 connected with water draining pipes and a pipe valve located on the top of the biochemical processing pool for marsh gas drainage and supply, a float position-limiting device connecting an electric switch to switch on or off an ozone disinfectant and a quality-distinguishing super filtering machine, a slope being arranged in the upper part of said pool which is provided with sewage draining pipes and valves connected with the

10 sewage-draining water –collecting well for sewage drainage.